

Microsemi Corporation

July 2017

Final Product/Process Change Notification No: PCN 2017-016

Change Classification: Major

Subject: Assembly Transfer of Powermite™ Line – Powermite 3 Package

Description of Change: Please note that Microsemi Semiconductors Manila - Philippines, Inc. located at FTI Special Economic Zone, Electronics Avenue, Taguig, Philippines (or MSP-T) will transfer the manufacturing of the Powermite™ line to Fastech Advanced Assembly Inc., located at Fastech Manufacturing Complex, Ampere Street cor. West Road, Light Industry and Science Park I, Cabuyao, Laguna, Philippines 4025.

Reason for Change: Consolidation of product line assembly as part of Microsemi's ongoing initiative driving operational and service efficiencies.

Application Impact:

As a Microsemi assembly subcontractor, Fastech will manufacture products using the existing manufacturing flows, equipment, materials, process controls and monitors, therefore ensuring the same level of quality and reliability. There will be no change to form, fit or function of the product.

Method of Identifying Changed Product:

The parts that will be assembled will be identified by assembly lot and date code.

Products Affected by this Change:

See Appendix

Note: This is a list of Ordering Part Numbers (OPNs) as are found in product datasheets. Customers may track additional part number variants in their systems, so please consider this a base part list.

Production Shipment Schedule:

Product with the change is planned to ship no sooner than July 2017.

During a transition period, customers may see shipments with either location while any existing inventory of parts is depleted.

Qualification Data:



PMT3 Qualification Data

This document summarizes the qualification testing done on the PMT3 family

Maximum Ratings

Operating Temperatures: -55 °C to +150 °C

Storage Temperatures: -55 °C to +150 °C

Datasheets are available at <http://www.microsemi.com>

| Qualification Data Summary | | | | | | | |
|----------------------------|------------------------------|---------------------------|-----------------|--------------------------|-------------|-------------|----------|
| Screening Level | Test Performed | Conditions | Duration or Qty | Standard / Ref | Sample size | No. Of Lots | Failures |
| M | Temperature Cycle | -55 °C to +150 °C | 1000 cycles | MIL-STD-750F Method 1051 | 77 | 1 | 0 |
| M | HTRB | 125 °C | 1000 hours | MIL-STD-750F Method 1038 | 77 | 1 | |
| M | Autoclave | 121 °C, 100 % RH, 15 psig | 96 hours | JESD22-A102 | 77 | 1 | 0 |
| M | Resistance to Solder Heat | - | - | JESD22-B106 | 30 | 1 | 0 |
| M | Physical Dimensions | - | - | MIL-STD-750F Method 2066 | 15 | 1 | 0 |
| M | Visual and Mechanical Review | - | - | MIL-STD-750F Method 2071 | 45 | 1 | 0 |
| M | Pre-conditioning | - | - | JESD22 A-113 | - | 1 | 0 |
| M | Solderability | - | - | J-STD-002 JESD22B102 | 10 | 1 | 0 |
| M | DPA | - | - | AEC-Q101-004 Section 4 | 2 | 1 | |
| M | MSL | - | - | J-STD-02D-01 | 22 | 1 | 0 |
| M | Bond Shear | - | - | MIL-STD-750 Method 2017 | 5 | 1 | 0 |

Samples Availability:

Please contact your local Microsemi representative to place sample orders.



Microsemi Corporate Headquarters
One Enterprise, Aliso Viejo, CA 92656 USA
Within the USA: +1 (800) 713-4113
Outside the USA: +1 (949) 380-6100
Sales: +1 (949) 380-6136
Fax: +1 (949) 215-4996
E-mail: sales.support@microsemi.com
www.microsemi.com

©2016 Microsemi Corporation. All rights reserved.
Microsemi and the Microsemi logo are registered trademarks of Microsemi Corporation. All other trademarks and service marks are the property of their respective owners.

Microsemi makes no warranty, representation, or guarantee regarding the information contained herein or the suitability of its products and services for any particular purpose, nor does Microsemi assume any liability whatsoever arising out of the application or use of any product or circuit. The products sold hereunder and any other products sold by Microsemi have been subject to limited testing and should not be used in conjunction with mission-critical equipment or applications. Any performance specifications are believed to be reliable but are not verified, and Buyer must conduct and complete all performance and other testing of the products, alone and together with, or installed in, any end-products. Buyer shall not rely on any data and performance specifications or parameters provided by Microsemi. It is the Buyer's responsibility to independently determine suitability of any products and to test and verify the same. The information provided by Microsemi hereunder is provided "as is, where is" and with all faults, and the entire risk associated with such information is entirely with the Buyer. Microsemi does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other IP rights, whether with regard to such information itself or anything described by such information. Information provided in this document is proprietary to Microsemi, and Microsemi reserves the right to make any changes to the information in this document or to any products and services at any time without notice.

About Microsemi

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for aerospace & defense, communications, data center and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs and ASICs; power management products; timing and synchronization devices and precise time solutions, setting the world's standard for time; voice processing devices; RF solutions; discrete components; enterprise storage and communication solutions; security technologies and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; as well as custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, Calif., and has approximately 4,800 employees globally. Learn more at www.microsemi.com.

MSC-F-0003 Rev 4

Do Not Distribute Outside Microsemi Without Written Permission

Page 2 of 5

Contact Information:

PCN Originator
Ciara O'Regan
Microsemi Ireland
Tel: +353 65 6840044 ext 2140
Email: ciara.oregan@microsemi.com

John O'Connor
Product Engineer.

High Reliability Discrete Solutions,
Discrete Products Group,
Microsemi Corporation.

Email: John.OConnor@microsemi.com

Power Discretes & Modules Business Unit
Discrete Products Group
Microsemi Corporation
6 Lake Street
Lawrence, MA 01841, USA
Tel: (978)620-2600
Email: sales.LAW@microsemi.com

Regards,

Microsemi Corporation

Any projected dates in this PCN are based on the most current product information at the time this PCN is being issued, but they may change due to unforeseen circumstances. For the latest schedule and any other information, please contact your local Microsemi Sales Office, the factory contact shown above, or your local distributor.

This Product/Process Change Notification is confidential and proprietary information of Microsemi and is intended only for distribution by Microsemi to its customers, for customers' use only. It must not be copied or provided to any third party without Microsemi's prior written consent.

<To be attached only where customer acknowledgement/approval is necessary prior to implementation>

CHANGE APPROVAL SUPPLEMENT

Customer Acknowledgement / Approval

Product/Process Change Notification No: PCN 2017-016

Microsemi Corporation intends to implement this change 90 days after this notification. Acknowledgement of your company's acceptance of this change is requested per contractual agreement. Response within 30 days is required.

Accepted

Rejected

Signature

Date

Name

Title

Please enter rationale for rejection, if applicable: _____



Microsemi Corporate Headquarters
One Enterprise, Aliso Viejo, CA 92656 USA
Within the USA: +1 (800) 713-4113
Outside the USA: +1 (949) 380-6100
Sales: +1 (949) 380-6136
Fax: +1 (949) 215-4996
E-mail: sales.support@microsemi.com
www.microsemi.com

©2016 Microsemi Corporation. All rights reserved. Microsemi and the Microsemi logo are registered trademarks of Microsemi Corporation. All other trademarks and service marks are the property of their respective owners.

Microsemi makes no warranty, representation, or guarantee regarding the information contained herein or the suitability of its products and services for any particular purpose, nor does Microsemi assume any liability whatsoever arising out of the application or use of any product or circuit. The products sold hereunder and any other products sold by Microsemi have been subject to limited testing and should not be used in conjunction with mission-critical equipment or applications. Any performance specifications are believed to be reliable but are not verified, and Buyer must conduct and complete all performance and other testing of the products, alone and together with, or installed in, any end-products. Buyer shall not rely on any data and performance specifications or parameters provided by Microsemi. It is the Buyer's responsibility to independently determine suitability of any products and to test and verify the same. The information provided by Microsemi hereunder is provided "as is, where is" and with all faults, and the entire risk associated with such information is entirely with the Buyer. Microsemi does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other IP rights, whether with regard to such information itself or anything described by such information. Information provided in this document is proprietary to Microsemi, and Microsemi reserves the right to make any changes to the information in this document or to any products and services at any time without notice.

About Microsemi

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions for aerospace & defense, communications, data center and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs and ASICs; power management products; timing and synchronization devices and precise time solutions, setting the world's standard for time; voice processing devices; RF solutions; discrete components; enterprise storage and communication solutions; security technologies and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; as well as custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, Calif., and has approximately 4,800 employees globally. Learn more at www.microsemi.com.

Appendix

| <u>MSC part number</u> | <u>Device type</u> | <u>Description</u> | <u>Package</u> | <u>Reel Size</u> |
|------------------------|--------------------|---------------------------------------|----------------|------------------|
| UPGA301A/TR13 | SCR | ITSM = 100A, VDRM = 100V, IGT < 200uA | Powermite 3 | 13" |
| UPGA301Ae3/TR13 | SCR | ITSM = 100A, VDRM = 100V, IGT < 200uA | Powermite 3 | 13" |
| UPS10100/TR13 | Schottky | 10.0A, 100V, VF=0.72V | Powermite 3 | 13" |
| UPS10100e3/TR13 | Schottky | 10.0A, 100V, VF=0.72V | Powermite 3 | 13" |
| UPS1040/TR13 | Schottky | 10.0A, 40V, VF=0.47V | Powermite 3 | 13" |
| UPS1040e3/TR13 | Schottky | 10.0A, 40V, VF=0.47V | Powermite 3 | 13" |
| UPS3100/TR13 | Schottky | 3.0A, 100V, VF=0.64V | Powermite 3 | 13" |
| UPS3100e3/TR13 | Schottky | 3.0A, 100V, VF=0.64V | Powermite 3 | 13" |
| UPS315/TR13 | Schottky | 3.0A, 15V, VF=0.22V | Powermite 3 | 13" |
| UPS315e3/TR13 | Schottky | 3.0A, 15V, VF=0.22V | Powermite 3 | 13" |
| UPS3200/TR13 | Schottky | 3.0A, 200V, VF=0.78V | Powermite 3 | 13" |
| UPS3200e3/TR13 | Schottky | 3.0A, 200V, VF=0.78V | Powermite 3 | 13" |
| UPS340/TR13 | Schottky | 3.0A, 40V, VF=0.44V | Powermite 3 | 13" |
| UPS340e3/TR13 | Schottky | 3.0A, 40V, VF=0.44V | Powermite 3 | 13" |
| UPS360/TR13 | Schottky | 3.0A, 60V, VF=0.57V | Powermite 3 | 13" |
| UPS360e3/TR13 | Schottky | 3.0A, 60V, VF=0.57V | Powermite 3 | 13" |
| UPS5100/TR13 | Schottky | 5.0A, 100V, VF=0.64V | Powermite 3 | 13" |
| UPS5100e3/TR13 | Schottky | 5.0A, 100V, VF=0.64V | Powermite 3 | 13" |
| UPS540/TR13 | Schottky | 5.0A, 40V, VF=0.45V | Powermite 3 | 13" |
| UPS540e3/TR13 | Schottky | 5.0A, 40V, VF=0.45V | Powermite 3 | 13" |
| UPS560/TR13 | Schottky | 5.0A, 60V, VF=0.60V | Powermite 3 | 13" |
| UPS560e3/TR13 | Schottky | 5.0A, 60V, VF=0.60V | Powermite 3 | 13" |
| UPS615/TR13 | Schottky | 6.0A, 15V, VF=0.22V | Powermite 3 | 13" |
| UPS6150/TR13 | Schottky | 6.0A, 150V, VF=0.65V | Powermite 3 | 13" |
| UPS6150e3/TR13 | Schottky | 6.0A, 150V, VF=0.65V | Powermite 3 | 13" |
| UPS615e3/TR13 | Schottky | 6.0A, 15V, VF=0.22V | Powermite 3 | 13" |
| UPS760/TR13 | Schottky | 7.0A, 60V, VF=0.48V | Powermite 3 | 13" |
| UPS760e3/TR13 | Schottky | 7.0A, 60V, VF=0.48V | Powermite 3 | 13" |
| UPS835L/TR13 | Schottky | 8.0A, 35V, VF=0.41V | Powermite 3 | 13" |
| UPS835Le3/TR13 | Schottky | 8.0A, 35V, VF=0.41V | Powermite 3 | 13" |
| UPS840/TR13 | Schottky | 8.0A, 40V, VF=0.42V | Powermite 3 | 13" |
| UPS840e3/TR13 | Schottky | 8.0A, 40V, VF=0.42V | Powermite 3 | 13" |

Microsemi Corporation

One Enterprise, Aliso Viejo, CA 92656 USA

Within the USA: +1 (800) 713-4113 Outside the USA: +1 (949) 380-6100 Sales: +1 (949) 380-6136 Fax: +1 (949) 215-4996 E-mail: sales.support@microsemi.com, www.microsemi.com

MSC-F-0003 Rev 4

Do Not Distribute Outside Microsemi Without Written Permission

Page 5 of 5